

In order to provide a more clear direct comparison, the project team decided to rerun the FREEVAL tool using the demand levels from the DYNASMART-P model. When the demand levels were thus synchronized, the results of the two projects were very similar. Therefore, the project team concluded that both tools are valid for ATIS evaluation when given appropriate inputs.

9.2.1.4 Speed Validation

As discussed in section 7.4.2, speed data was acquired for a time period for the I-40 resurfacing work zone during which the extents of the work zone were known. The specific work zone condition was model in both DYNASMART-P and FREEVAL. Both tools gave reasonable speed results. Although this did not represent a rigorous validation, it provided further support for the conclusion that both tools were providing reasonable results.

9.2.1.5 Benefit Cost Analysis

The example benefit cost analysis presented in section 7.4.3 illustrates that high benefit to cost ratios can be derived for effective traveler information (higher than 20:1 for the case study evaluations). However, it must be stressed that this is in essence based on benefits of traveler information and not necessarily the modeled ATIS investments. It continues to difficult to isolate the marginal effect of individual ATIS technology investments. Therefore, the ability to perform more and more precise benefit cost analyses will come with improved understanding of the impact of specific ATIS technologies on driver behavior and improved data collection and analysis procedures.

9.2.2 Evaluation Framework

In the course of reflecting on the project tasks and developing the recommended framework under task 10, three guiding principles were identified –